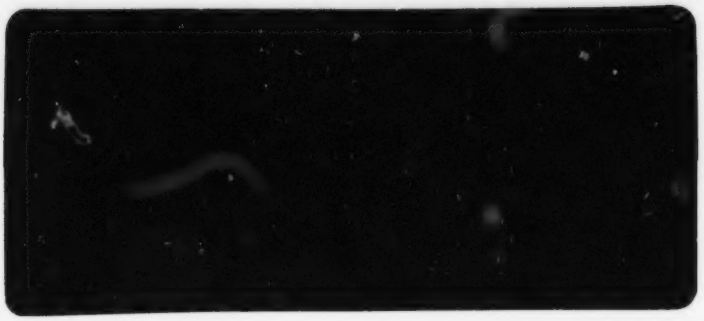
Manitoba
Bureau of
Statistics



MANITOBA

LABOUR FORCE PROJECTIONS

1987 - 2011

MBS 88-3

PRICE: $25.

April 1989

Manitoba Bureau of Statistics

EXECUTIVE SUMMARY

This report presents the projected labour force population, participation rates, and labour force for Manitoba, by age group and sex, for the period 1989 to 2011. Highlights of these projections are as follows:

1. The projected labour force population for Manitoba increases 16.7%, from 803,000 in 1988 to 937,000 in 2011. The male portion is to increase 18.5% from 390,000 to 462,000, and the female portion is to increase 14.8% from 413,000 to 474,000, during this projection period.

2. The projected participation rate for Manitoba increases from 66.7% in 1988 to 68.5% in 2011. The participation rate for males aged 15 and over is projected to fall 1.6 points, from 75.9% to 74.3%, over this period, while the participation rate for females in the labour force population is projected to increase 4.9 points, from 57.9% to 62.8%.

3. The projected labour force for Manitoba increases 20.0%, from 535,000 in 1988 to 642,000 in 2011. The male portion is to increase 16.2%, from 296,000 to 344,000, and the female portion is to increase 24.7%, from 239,000 to 298,000, from 1988 to 2011.

4. Over the course of the projection period, there are marked changes in the age group composition of the labour force of Manitoba. The largest segment in 1988, the 25-34 group, becomes the third largest by 2011. Similarily, the third largest group in 1988, 45-54, becomes the largest by 2011. The fifth largest group in 1988, 55-64, replaces the 20-24 age group as fourth largest by 2011.

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INTRODUCTION

This report presents the projected Manitoba labour force population, participation rates and labour force for the period 1989 to 2011. These items, which have been projected by sex and age group, are defined below:

1) **Labour Force Population** - the civilian, non-institutionalized population aged 15 years and over

2) **Participation Rate** - the percentage of the labour force population that is in the labour force

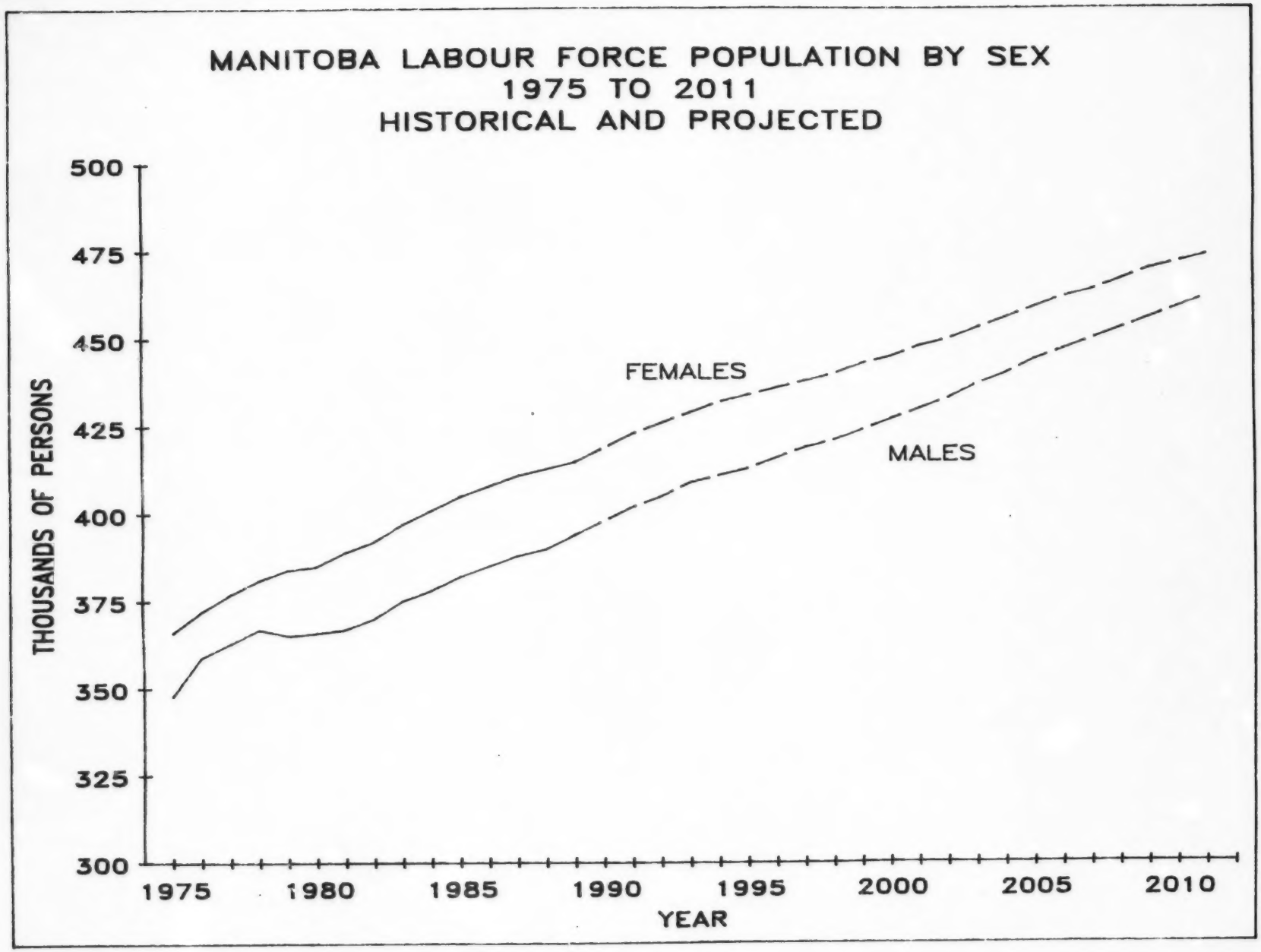
3) **Labour Force** - the number of persons that are either employed or unemployed

Historical data (1966 to 1988 annual averages for females, and 1975 to 1988 for males) on Manitoba's age and sex specific participation rates and labour force were obtained from the Statistics Canada Labour Force Survey (Catalogues 71-001 and 71-529). The labour force population projections were based on the Manitoba Bureau of Statistics report **Manitoba Population Projections 1988 - 2011.**

Participation rates were projected for the years 1989 to 2011 for males and females in each age group: 15-19, 20-24, 25-34, 35-44, 45-54, 55-64 and 65+. The projected labour force (displayed in Appendix C) was then derived from the projected labour force population (Appendix A) and projected participation rates (Appedicies B and D). The methodology used in projecting the sex and age specific participation rates is described in Appendix E.

The estimated participation rates for 1988 have been used to ensure consistency in this report between the historical and projected data.

These projections are not forecasts, but project what would occur if historical trends continue and assumptions made hold true. As the process of change is cumulative, the reliability of these projections decreases over time.


MANITOBA LABOUR FORCE POPULATION BY SEX
1975 TO 2011
HISTORICAL AND PROJECTED
THOUSANDS OF PERSONS
500
475
450
425
400
375
350
325
300
FEMALES
MALES
1975
1980
1985
1990
1995
2000
2005
2010
YEAR

LABOUR FORCE POPULATION

Historically, labour force populations of both males and females have been increasing each year, and are expected to continue to grow along with the total population of Manitoba (Population x Adjustment = Labour Force Population), through the year 2011. The male labour force population is projected to increase 18.5%, from 390,000 in 1988 to 462,000 in 2011, the female labour force population is projected to increase 14.8%, from 413,000 to 474,000 and the total labour force population is projected to increase 16.7%, from 803,000 to 937,000.

Labour force populations of the 65+ age group (for both sexes) are also projected to increase continuously throughout the projection period, from 55,000 in 1988 to 68,000 in 2011 (23.6%) for males, and from 73,000 in 1988 to 93,000 in 2011 (27.4%) for females.

For males 45-54, the projected labour force population increases 73.5% from the 1988 estimate of 49,000 to 85,000 in 2011. The female labour force population of this age group increases 69.4% from the 1988 estimate of 49,000 to 83,000 in 2011. This age group has the greatest percentage increase in labour force population over the projection period.

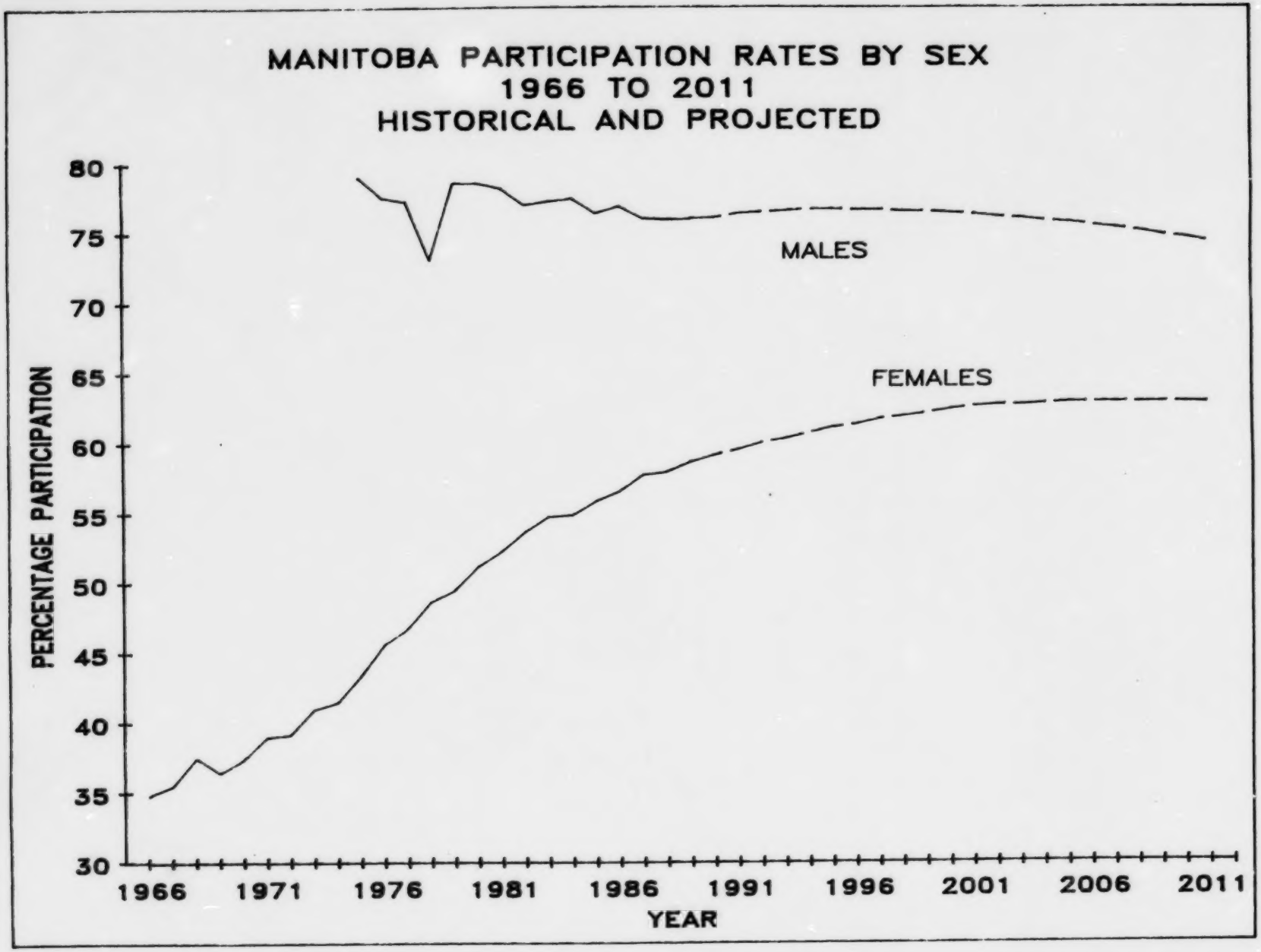
For males and females in the 55-64 age group, projected labour force populations decrease moderately through the mid 1990's, then take an upturn and record the second greatest percentage increase in labour force population over the projection period; 55.5% for males and 56.3% for females.

The projected labour force populations for males and females aged 15-19 and 20-24 will remain fairly constant over the projection period, rising above and falling below the 1988 estimates by only a few thousand. In 2011, the projected labour force population of males 15-19 and females 15-19 are 2,000 less than in 1988. In 2011, the projected labour force population of males 20-24 is 1,000 more than in 1988, and that of females 20-24 is 2,000 less.

Labour force populations of males and females aged 25-34 are projected to decrease throughout the projection period. For males an 11.2% decrease and for females a 17.8% decrease in labour force populations are projected from 1988 to 2011.

Labour force populations of males and females aged 35-44 are projected to increase through the first half of the projection period, and decrease through the second half. For males an 11.1% increase and for females a 1.4% increase in labour force populations are projected from 1988 to 2011. From 1988 to 2000 these populations are projected to increase 22.2% and 19.2% for males and females respectively.

Appendix A provides detailed tables of the projected labour force population of Manitoba for both sexes, males and females, by age group.


MANITOBA PARTICIPATION RATES BY SEX
1966 TO 2011
HISTORICAL AND PROJECTED
MALES
FEMALES
PERCENTAGE PARTICIPATION
80
75
70
65
60
55
50
45
40
35
30
1966
1971
1976
1981
1986
1991
1996
2001
2006
2011
YEAR

PARTICIPATION RATES

The overall participation rate for Manitoba, estimated at 66.7% for 1988, is projected to increase to 68.5% by 2011. Over the projection period, the male rate is projected to fall 1.6 points, from 75.9% to 74.3% and the female rate is projected to rise 4.9 points, from 57.9% to 62.8%. In all age groups, except 55-64, the both sexes participation rate is projected to increase from 1988 to 2011.

In the 15-19 age group, the projected participation rates for males and females are averages of the historical data. For males, this average (61.8%) is 1.5 points higher than the 1988 estimate, and for females the average (58.3%) is 0.2 points lower than the 1988 estimate. For females, this is the only age group not projected to have an increasing participation rate. It is also the only age group in which female participation rates fall in relation to male rates, from 97.0% in 1988 to 94.3% in 2011.

For the age groups 20-24, 25-34, 35-44 and 45-54, the projected male participation rates are averages of the historical data. For all these groups, the average rates are slightly greater than the 1988 estimated rates. These projected averages are: 87.6% for males aged 20-24, 95.6% for 25-34, 96.8% for 35-44 and 94.1% for 45-54.

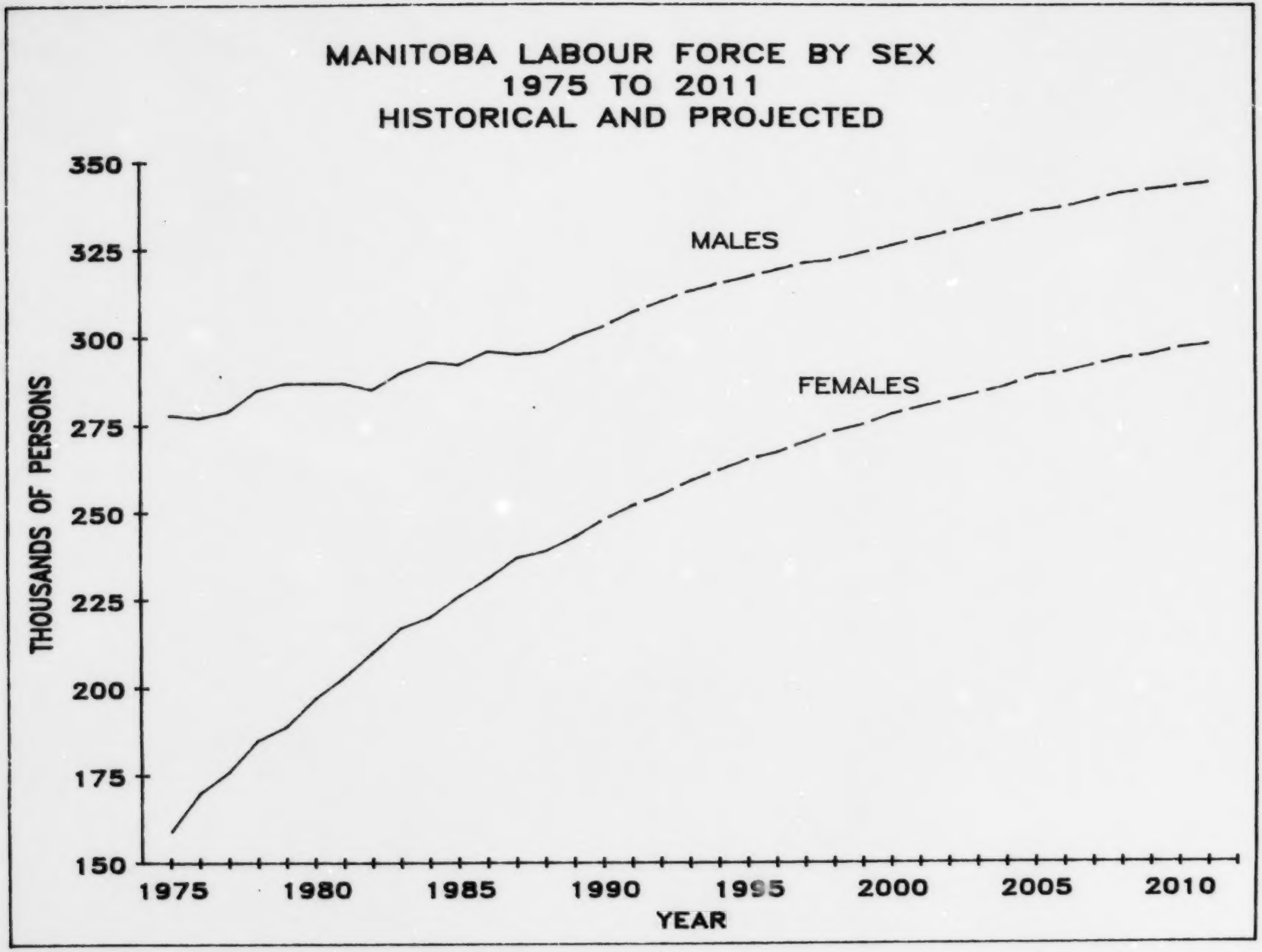
Female participation rates for these age groups are projected to increase from 79.4% to 82.3% for ages 20-24, 76.9% to 88.0% for 25-34, 79.0% to 92.5% for 35-44 and 72.7% to 84.2% for 45-54. In 1988 female participation rates as a percentage of male rates were 91.2%, 81.3%, 82.8% and 78.9%, for the 20-24, 25-34, 35-44 and 45-54 age groups respectively; in 2011 they are projected to be 93.9%, 92.1%, 95.6% and 89.5% of the corresponding male rates.

Males in the 55-64 and 65+ age groups are projected to have declining participation rates. The projected participation rate of males aged 55-64 is to decrease 11.6 points, from 69.9% in 1988 to 58.3% in 2011. The projected participation rate of males aged 65+ is to decrease from 13.5% in 1988 to 12.0% for 1993 to 2003, then increase to 12.8% in 2011, for a net loss of 0.7 points.

The projected participation rate of females aged 55-64 is to increase 8.7 points, from 39.5% in 1988 to 48.2% in 2011. The female rate taken as a percentage of the male rate jumps 26.2 points over the projection period, from 56.5% in 1988 to 82.7%in 2011.

The participation rate of females aged 65+ is projected to increase from 4.7% in 1988 to 5.7% for 2010 and 2011.

Appendix B provides tables featuring projected participation rates for Manitoba by sex and age group, and projected female rates as a percentage of male rates. Appendix D presents this information graphically.


MANITOBA LABOUR FORCE BY SEX
1975 TO 2011
HISTORICAL AND PROJECTED
350
325
300
275
250
225
200
175
150
THOUSANDS OF PERSONS
MALES
FEMALES
1975
1980
1985
1990
1995
2000
2005
2010
YEAR

LABOUR FORCE

The male and female labour forces have historically been increasing each year, and are expected to continue to grow through the year 2011. The male labour force is projected to increase 16.2%, from 296,000 in 1988 to 344,000 in 2011, the female labour force is to increase 24.7%, from 239,000 to 298,000 and the total labour force is to increase 20.0%, from 535,000 to 642,000.

The projected labour force of the 15-19 age group remains fairly constant over the projection period, with a marginal decrease of 1,000 projected for each sex from 1988 to 2011.

Little change is also projected in the labour force of the 20-24 age group. For males, the 1988 estimate of 36,000 decreases to 34,000 for 1998 to 2006 then recovers to 37,000 for 2011. For females, the 1988 estimate of 33,000 decreases to 30,000 for 1997 to 2006 then recovers to 32,000 for the last four years of the projection period.

The projected labour forces of males and females aged 25-34 increase initially, but record a net decrease over the projection period. For males, the 1988 estimate of 84,000 goes to 86,000 for 1990 to 1993, then falls to 76,000 for 2006 to 2011, a 9.5% decrease from 1988. For females, the 1988 estimate of 69,000 increases to 72,000 for 1991 and 1992, decreases to 65,000 by 2000 then varies between 64,000 and 65,000 through 2011, recording a 5.8% decrease from 1988.

The projected labour forces of males and females aged 35-44 increase over the first half of the projection period, and decrease over the second half, but record a net increase overall; 13.0% for males and 17.2% for females. For males, the 1988 estimate of 69,000 reachs 86,000 by 2000 then decreases to 78,000 for 2010 and 2011. For females, the 1988 estimate of 58,000 reachs 77,000 for 1999 to 2002 then decreases to 68,000 by 2011.

The projected labour forces of the 45-54 age group increase by 77.8% and 94.4% over the projection period, for males and females respectively. The male labour force increases from 45,000 in 1988 to 80,000 in 2011, and the female labour force increases from 36,000 to 70,000.

In the 55-64 age group, the projected female labour force increases 89.5%, from 19,000 in 1988 to 36,000 in 2011. The projected male labour force decreases over the first half of the projection period, but still records a net gain of 32.3%, from 31,000 in 1988 to 41,000 in 2011. Slow but steady growth is projected for the 65+ labour force, from the estimate of 7,000 males in 1988 to 9,000 in 2011, and from 3,000 females in 1988 to 5,000 in 2011.

The labour force projections highlight great changes in the age group composition of Manitoba's labour force over the projection period. In 1988, the 25-34 group was the largest, followed by the 35-44 and 45-54. However, by 2011 the 45-54 age group will be the largest, the 35-44 second largest and the 25-34 third. Also over this time period the 20-24 group, currently fourth largest is projected to be surpassed by the 55-64 group.

Appendix C provides a series of detailed tables and charts on the projected labour force of Manitoba, by age group and sex, through 2011.

TABLE A1. LABOUR FORCE POPULATION FOR MANITOBA BY AGE GROUP: 1987 - 2011
MALES

	15-19	20-24	25-34	35-44	45-54	55-64	65+	TOTAL
				(population in thousands)				
1987	40	43	88	70	48	45	54	388
1988	40	41	89	72	49	45	55	390
1989	40	41	90	74	50	44	56	394
1990	39	40	91	76	51	44	57	398
1991	39	41	91	78	52	44	58	402
1992	38	41	90	79	55	43	58	405
1993	38	42	90	80	57	43	59	409
1994	37	41	89	82	59	43	59	411
1995	37	41	88	83	61	43	60	413
1996	37	40	88	85	63	44	60	416
1997	37	40	86	86	65	44	60	419
1998	37	39	85	87	67	45	61	421
1999	37	39	84	88	70	46	61	424
2000	37	39	83	88	72	47	61	427
2001	38	38	82	88	74	48	61	430
2002	38	38	82	87	75	51	61	433
2003	39	39	82	87	76	53	61	437
2004	39	39	81	86	77	55	62	440
2005	40	39	80	86	79	58	62	444
2006	40	39	80	85	81	60	63	447
2007	40	40	79	84	82	62	63	450
2008	39	41	79	83	83	64	64	453
2009	39	41	79	81	84	66	66	456
2010	38	42	79	81	85	68	67	459
2011	38	42	79	80	85	70	68	462

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TABLE A2. LABOUR FORCE POPULATION FOR MANITOBA BY AGE GROUP: 1987 - 2011
FEMALES

	15-19	20-24	25-34	35-44	45-54	55-64	65+	TOTAL
				(population in thousands)				
1987	38	44	89	71	49	49	72	411
1988	38	41	90	73	49	48	73	413
1989	38	40	90	75	50	47	75	415
1990	37	39	90	78	51	47	77	419
1991	37	39	90	80	53	47	78	423
1992	36	39	89	81	55	46	80	426
1993	36	39	88	82	58	46	81	429
1994	36	39	86	83	60	46	82	432
1995	35	38	85	84	63	46	83	434
1996	35	38	84	85	65	46	84	436
1997	35	37	82	86	67	47	84	438
1998	35	37	80	87	69	48	85	440
1999	35	37	78	87	72	49	85	443
2000	35	37	77	87	74	50	85	445
2001	36	36	76	87	76	51	86	448
2002	36	36	75	85	77	54	86	450
2003	37	36	75	84	78	57	87	453
2004	37	37	75	83	79	59	87	456
2005	38	37	74	82	80	61	87	459
2006	38	37	73	81	81	63	88	462
2007	38	38	73	79	82	66	89	464
2008	37	38	73	77	83	68	90	467
2009	37	39	73	76	84	70	91	470
2010	36	39	73	74	84	73	92	472
2011	36	39	74	74	83	75	93	474

MANITOBA BUREAU OF STATISTICS

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TABLE A3. LABOUR FORCE POPULATION FOR MANITOBA BY AGE GROUP: 1987 - 2011
BOTH SEXES

	15-19	20-24	25-34	35-44	45-54	55-64	65+	TOTAL
				(population in thousands)				
1987	78	86	177	140	97	95	126	799
1988	78	82	179	145	98	93	128	803
1989	77	80	180	149	100	92	131	810
1990	76	79	181	154	102	91	134	817
1991	75	80	181	158	105	90	136	825
1992	74	80	179	160	110	90	138	831
1993	74	81	177	162	115	89	140	838
1994	73	80	176	164	119	89	141	843
1995	72	79	173	167	124	89	142	847
1996	72	78	171	170	128	90	143	852
1997	72	77	168	172	133	91	144	857
1998	72	76	165	174	137	92	145	862
1999	73	76	162	175	141	95	146	867
2000	73	75	159	176	146	97	146	872
2001	73	75	158	175	150	100	147	877
2002	75	75	157	173	152	105	147	884
2003	76	75	156	171	154	110	148	890
2004	77	75	156	169	156	114	149	896
2005	78	76	154	167	159	119	150	903
2006	78	76	153	166	162	123	151	909
2007	77	78	153	163	164	128	152	915
2008	77	79	152	160	167	132	154	920
2009	76	80	153	157	168	136	156	926
2010	75	81	153	155	169	141	159	931
2011	74	81	153	154	168	145	161	937

MANITOBA BUREAU OF STATISTICS

MARCH, 1989

TABLE B1. PARTICIPATION RATES FOR MANITOBA BY AGE GROUP: 1987 - 2011
MALES

	15-19	20-24	25-34	35-44	45-54	55-64	65+	TOTAL
	(percentage participation)							
1987	62.1	85.8	94.3	96.1	94.2	67.7	13.9	76.0
1988	60.3	87.1	94.6	95.4	92.2	69.9	13.5	75.9
1989	60.6	87.2	94.8	95.7	92.6	69.4	13.2	76.0
1990	60.9	87.3	95.0	96.0	93.0	68.9	12.9	76.1
1991	61.2	87.4	95.2	96.2	93.3	68.4	12.6	76.4
1992	61.5	87.5	95.4	96.5	93.7	67.9	12.3	76.5
1993	61.8	87.6	95.6	96.8	94.1	67.4	12.0	76.6
1994	61.8	87.6	95.6	96.8	94.1	66.9	12.0	76.7
1995	61.8	87.6	95.6	96.8	94.1	66.4	12.0	76.7
1996	61.8	87.6	95.6	96.8	94.1	65.9	12.0	76.6
1997	61.8	87.6	95.6	96.8	94.1	65.4	12.0	76.6
1998	61.8	87.6	95.6	96.8	94.1	64.9	12.0	76.5
1999	61.8	87.6	95.6	96.8	94.1	64.4	12.0	76.5
2000	61.8	87.6	95.6	96.8	94.1	63.8	12.0	76.4
2001	61.8	87.6	95.6	96.8	94.1	63.3	12.0	76.3
2002	61.8	87.6	95.6	96.8	94.1	62.8	12.0	76.1
2003	61.8	87.6	95.6	96.8	94.1	62.3	12.0	76.0
2004	61.8	87.6	95.6	96.8	94.1	61.8	12.1	75.8
2005	61.8	87.6	95.6	96.8	94.1	61.3	12.2	75.7
2006	61.8	87.6	95.6	96.8	94.1	60.8	12.3	75.5
2007	61.8	87.6	95.6	96.8	94.1	60.3	12.4	75.3
2008	61.8	87.6	95.6	96.8	94.1	59.8	12.5	75.1
2009	61.8	87.6	95.6	96.8	94.1	59.3	12.6	74.8
2010	61.8	87.6	95.6	96.8	94.1	58.8	12.7	74.6
2011	61.8	87.6	95.6	96.8	94.1	58.3	12.8	74.3

MANITOBA BUREAU OF STATISTICS

MARCH, 1989

TABLE B2. PARTICIPATION RATES FOR MANITOBA BY AGE GROUP: 1987 - 2011
FEMALES

	15-19	20-24	25-34	35-44	45-54	55-64	65+	TOTAL
	(percentage participation)							
1987	58.4	77.5	76.9	75.6	72.6	40.1	4.7	57.7
1988	58.5	79.4	76.9	79.0	72.7	39.5	4.7	57.9
1989	58.3	79.7	77.9	80.1	73.2	39.8	4.7	58.6
1990	58.3	80.0	78.9	81.2	73.7	40.2	4.8	59.1
1991	58.3	80.3	79.7	82.2	74.2	40.6	4.8	59.5
1992	58.3	80.5	80.5	83.1	74.7	41.0	4.9	60.0
1993	58.3	80.7	81.3	84.0	75.2	41.4	4.9	60.3
1994	58.3	80.9	81.9	84.8	75.7	41.7	5.0	60.7
1995	58.3	81.1	82.6	85.5	76.2	42.1	5.0	61.1
1996	58.3	81.2	83.1	86.2	76.7	42.5	5.0	61.3
1997	58.3	81.4	83.7	86.9	77.2	42.9	5.1	61.7
1998	58.3	81.5	84.2	87.5	77.7	43.3	5.1	61.9
1999	58.3	81.6	84.6	88.1	78.2	43.6	5.2	62.1
2000	58.3	81.7	85.0	88.6	78.7	44.0	5.2	62.4
2001	58.3	81.8	85.4	89.1	79.2	44.4	5.3	62.6
2002	58.3	81.9	85.8	89.6	79.7	44.8	5.3	62.7
2003	58.3	81.9	86.1	90.0	80.2	45.2	5.4	62.7
2004	58.3	82.0	86.4	90.4	80.7	45.5	5.4	62.8
2005	58.3	82.1	86.7	90.8	81.2	45.9	5.4	62.9
2006	58.3	82.1	87.0	91.1	81.7	46.3	5.5	62.9
2007	58.3	82.2	87.2	91.4	82.2	46.7	5.5	62.9
2008	58.3	82.2	87.4	91.7	82.7	47.0	5.6	62.9
2009	58.3	82.2	87.6	92.0	83.2	47.4	5.6	62.9
2010	58.3	82.3	87.8	92.3	83.7	47.8	5.7	62.9
2011	58.3	82.3	88.0	92.5	84.2	48.2	5.7	62.8

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TABLE B3. PARTICIPATION RATES FOR MANITOBA BY AGE GROUP: 1987 - 2011
BOTH SEXES

	15-19	20-24	25-34	35-44	45-54	55-64	65+	TOTAL
	(percentage participation)							
1987	60.3	81.6	85.5	85.8	83.4	53.3	8.7	66.5
1988	59.4	83.2	85.7	87.1	82.4	54.1	8.0	66.6
1989	59.5	83.5	86.3	87.8	82.9	54.1	8.3	67.1
1990	59.6	83.7	87.0	88.5	83.3	54.1	8.3	67.4
1991	59.8	83.9	87.5	89.2	83.7	54.1	8.1	67.7
1992	59.9	84.1	88.0	89.7	84.1	54.0	8.0	68.0
1993	60.1	84.3	88.5	90.3	84.5	54.0	7.9	68.3
1994	60.1	84.4	88.9	90.8	84.8	53.9	7.9	68.5
1995	60.1	84.5	89.2	91.1	85.0	53.9	7.9	68.7
1996	60.1	84.5	89.5	91.5	85.3	53.9	7.9	68.8
1997	60.1	84.6	89.8	91.9	85.5	53.8	8.0	69.0
1998	60.1	84.6	90.1	92.2	85.8	53.8	8.0	69.0
1999	60.1	84.7	90.3	92.5	86.0	53.7	8.0	69.1
2000	60.1	84.7	90.5	92.7	86.3	53.6	8.0	69.2
2001	60.1	84.8	90.7	93.0	86.5	53.6	8.1	69.3
2002	60.1	84.8	90.9	93.2	86.8	53.6	8.1	69.3
2003	60.1	84.8	91.1	93.5	87.1	53.5	8.1	69.2
2004	60.1	84.9	91.2	93.7	87.3	53.4	8.2	69.2
2005	60.1	84.9	91.3	93.9	87.6	53.4	8.2	69.2
2006	60.1	84.9	91.5	94.0	87.9	53.3	8.3	69.1
2007	60.1	85.0	91.6	94.2	88.1	53.3	8.4	69.0
2008	60.1	85.0	91.7	94.3	88.4	53.2	8.5	68.9
2009	60.1	85.0	91.8	94.5	88.7	53.2	8.5	68.8
2010	60.1	85.0	91.8	94.6	88.9	53.1	8.6	68.7
2011	60.1	85.0	91.9	94.7	89.2	53.1	8.7	68.5

MANITOBA BUREAU OF STATISTICS

MARCH, 1989

TABLE B4. FEMALE PARTICIPATION RATES AS A PERCENTAGE OF MALE RATES

	15-19	20-24	25-34	35-44	45-54	55-64	65+	TOTAL
1987	94.0	90.3	81.5	78.7	77.1	59.2	33.8	75.8
1988	97.0	91.2	81.3	82.8	78.9	56.5	34.8	76.2
1989	96.2	91.4	82.2	83.7	79.1	57.3	35.6	77.1
1990	95.7	91.6	83.1	84.6	79.3	58.3	37.2	77.6
1991	95.3	91.9	83.7	85.4	79.5	59.4	38.1	77.9
1992	94.8	92.0	84.4	86.1	79.7	60.4	39.8	78.4
1993	94.3	92.1	85.0	86.8	79.9	61.4	40.8	78.7
1994	94.3	92.4	85.7	87.6	80.4	62.3	41.7	79.2
1995	94.3	92.6	86.4	88.3	81.0	63.4	41.7	79.6
1996	94.3	92.7	86.9	89.0	81.5	64.5	41.7	80.0
1997	94.3	92.9	87.6	89.8	82.0	65.6	42.5	80.5
1998	94.3	93.0	88.1	90.4	82.6	66.7	42.5	80.9
1999	94.3	93.2	88.5	91.0	83.1	67.7	43.3	81.3
2000	94.3	93.3	88.9	91.5	83.6	69.0	43.3	81.7
2001	94.3	93.4	89.3	92.0	84.2	70.1	44.2	82.0
2002	94.3	93.5	89.7	92.6	84.7	71.3	44.2	82.3
2003	94.3	93.5	90.1	93.0	85.2	72.6	45.0	82.5
2004	94.3	93.6	90.4	93.4	85.8	73.6	44.6	82.8
2005	94.3	93.7	90.7	93.8	86.3	74.9	44.3	83.1
2006	94.3	93.7	91.0	94.1	86.8	76.2	44.7	83.4
2007	94.3	93.8	91.2	94.4	87.4	77.4	44.4	83.6
2008	94.3	93.8	91.4	94.7	87.9	78.6	44.8	83.8
2009	94.3	93.8	91.6	95.0	88.4	79.9	44.4	84.0
2010	94.3	93.9	91.8	95.4	88.9	81.3	44.9	84.3
2011	94.3	93.9	92.1	95.6	89.5	82.7	44.5	84.6

MANITOBA BUREAU OF STATISTICS

MARCH, 1989

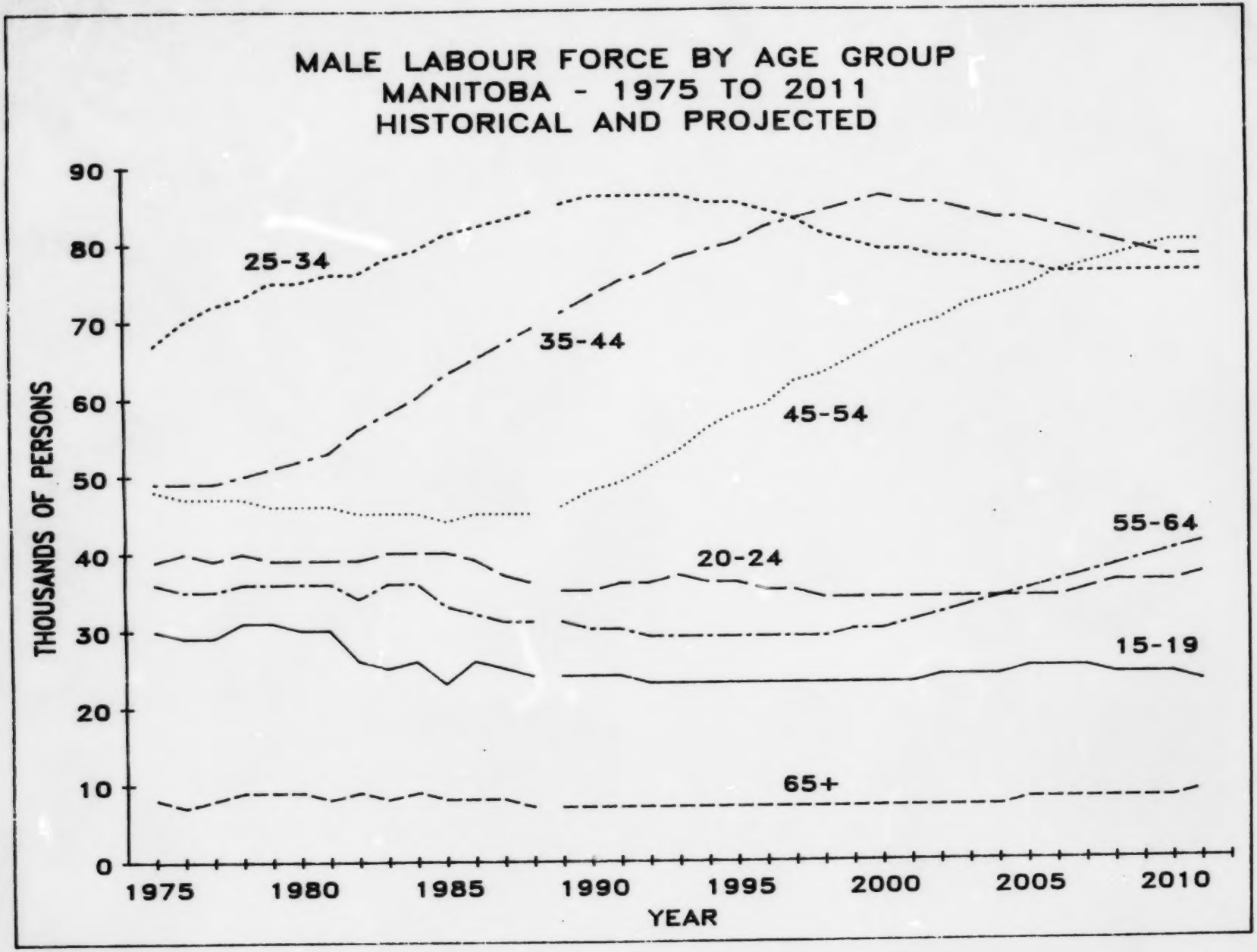

MALE LABOUR FORCE BY AGE GROUP
MANITOBA - 1975 TO 2011
HISTORICAL AND PROJECTED
THOUSANDS OF PERSONS
YEAR
25-34
35-44
45-54
55-64
20-24
15-19
65+
0
10
20
30
40
50
60
70
80
90
1975
1980
1985
1990
1995
2000
2005
2010

TABLE C1. LABOUR FORCE FOR MANITOBA BY AGE GROUP: 1987 - 2011

MALES

	15-19	20-24	25-34	35-44	45-54	55-64	65+	TOTAL
				(population in thousands)				
1987	25	37	83	67	45	31	8	295
1988	24	36	84	69	45	31	7	296
1989	24	35	85	71	46	31	7	300
1990	24	35	86	73	48	30	7	303
1991	24	36	86	75	49	30	7	307
1992	23	36	86	76	51	29	7	310
1993	23	37	86	78	53	29	7	313
1994	23	36	85	79	56	29	7	315
1995	23	36	85	80	58	29	7	317
1996	23	35	84	82	59	29	7	319
1997	23	35	83	83	62	29	7	321
1998	23	34	81	84	63	29	7	322
1999	23	34	80	85	65	30	7	324
2000	23	34	79	86	67	30	7	326
2001	23	34	79	85	69	31	7	328
2002	24	34	78	85	70	32	7	330
2003	24	34	78	84	72	33	7	332
2004	24	34	77	83	73	34	7	334
2005	25	34	77	83	74	35	8	336
2006	25	34	76	82	76	36	8	337
2007	25	35	76	81	77	37	8	339
2008	24	36	76	80	78	38	8	341
2009	24	36	76	79	79	39	8	342
2010	24	36	76	78	80	40	8	343
2011	23	37	76	78	80	41	9	344

MANITOBA BUREAU OF STATISTICS

MARCH, 1989

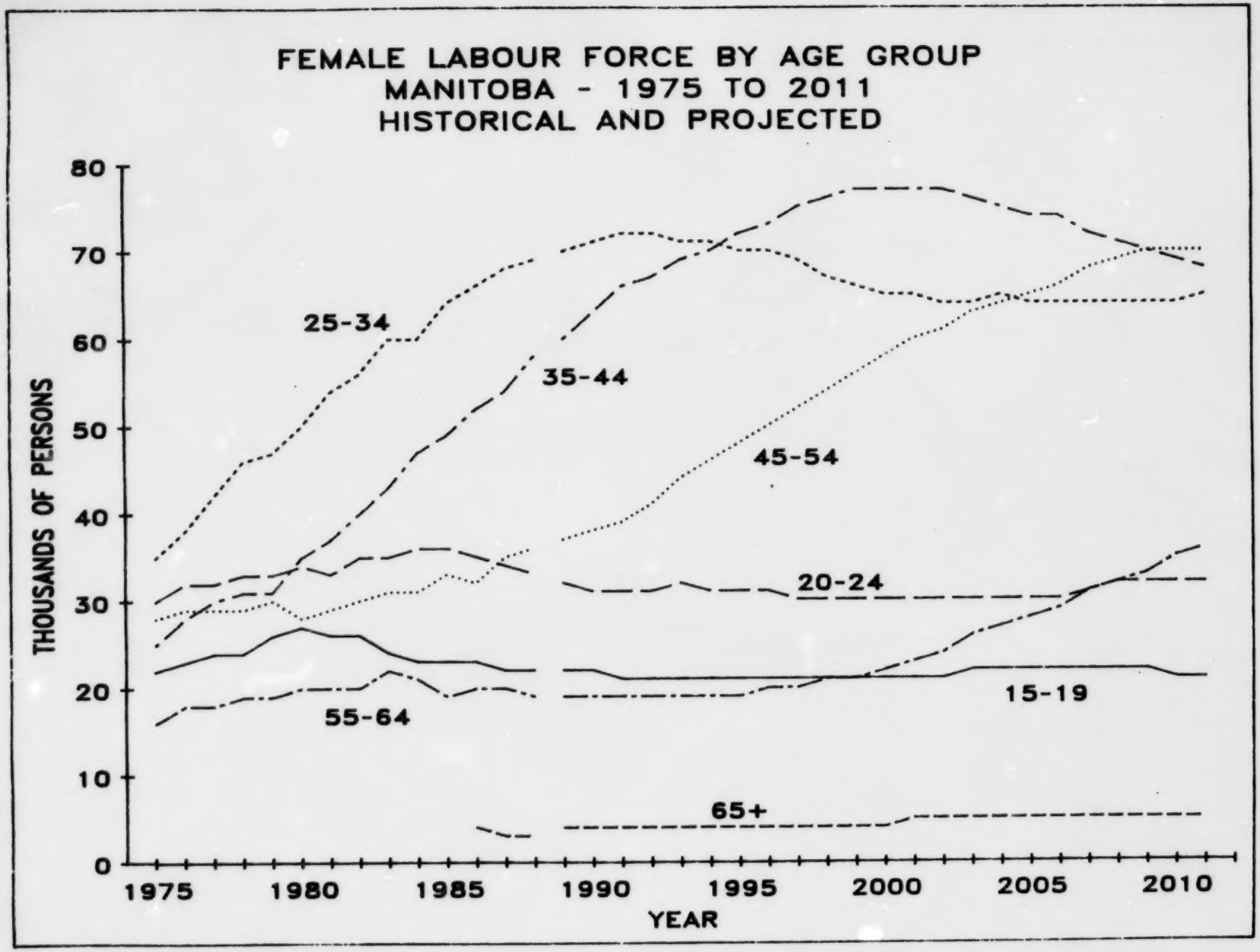

FEMALE LABOUR FORCE BY AGE GROUP
MANITOBA - 1975 TO 2011
HISTORICAL AND PROJECTED
THOUSANDS OF PERSONS
80
70
60
50
40
30
20
10
0
25-34
35-44
45-54
20-24
15-19
55-64
65+
1975
1980
1985
1990
1995
2000
2005
2010
YEAR

TABLE C2. LABOUR FORCE FOR MANITOBA BY AGE GROUP: 1987 - 2011

FEMALES

	15-19	20-24	25-34	35-44	45-54	55-64	65+	TOTAL
				(population in thousands)				
1987	22	34	68	54	35	20	3	237
1988	22	33	69	58	36	19	3	239
1989	22	32	70	60	37	19	4	243
1990	22	31	71	63	38	19	4	248
1991	21	31	72	66	39	19	4	252
1992	21	31	72	67	41	19	4	255
1993	21	32	71	69	44	19	4	259
1994	21	31	71	70	46	19	4	262
1995	21	31	70	72	48	19	4	265
1996	21	31	70	73	50	20	4	267
1997	21	30	69	75	52	20	4	270
1998	21	30	67	76	54	21	4	273
1999	21	30	66	77	56	21	4	275
2000	21	30	65	77	58	22	4	278
2001	21	30	65	77	60	23	5	280
2002	21	30	64	77	61	24	5	282
2003	22	30	64	76	63	26	5	284
2004	22	30	65	75	64	27	5	286
2005	22	30	64	74	65	28	5	289
2006	22	30	64	74	66	29	5	290
2007	22	31	64	72	68	31	5	292
2008	22	32	64	71	69	32	5	294
2009	22	32	64	70	70	33	5	295
2010	21	32	64	69	70	35	5	297
2011	21	32	65	68	70	36	5	298

MANITOBA BUREAU OF STATISTICS

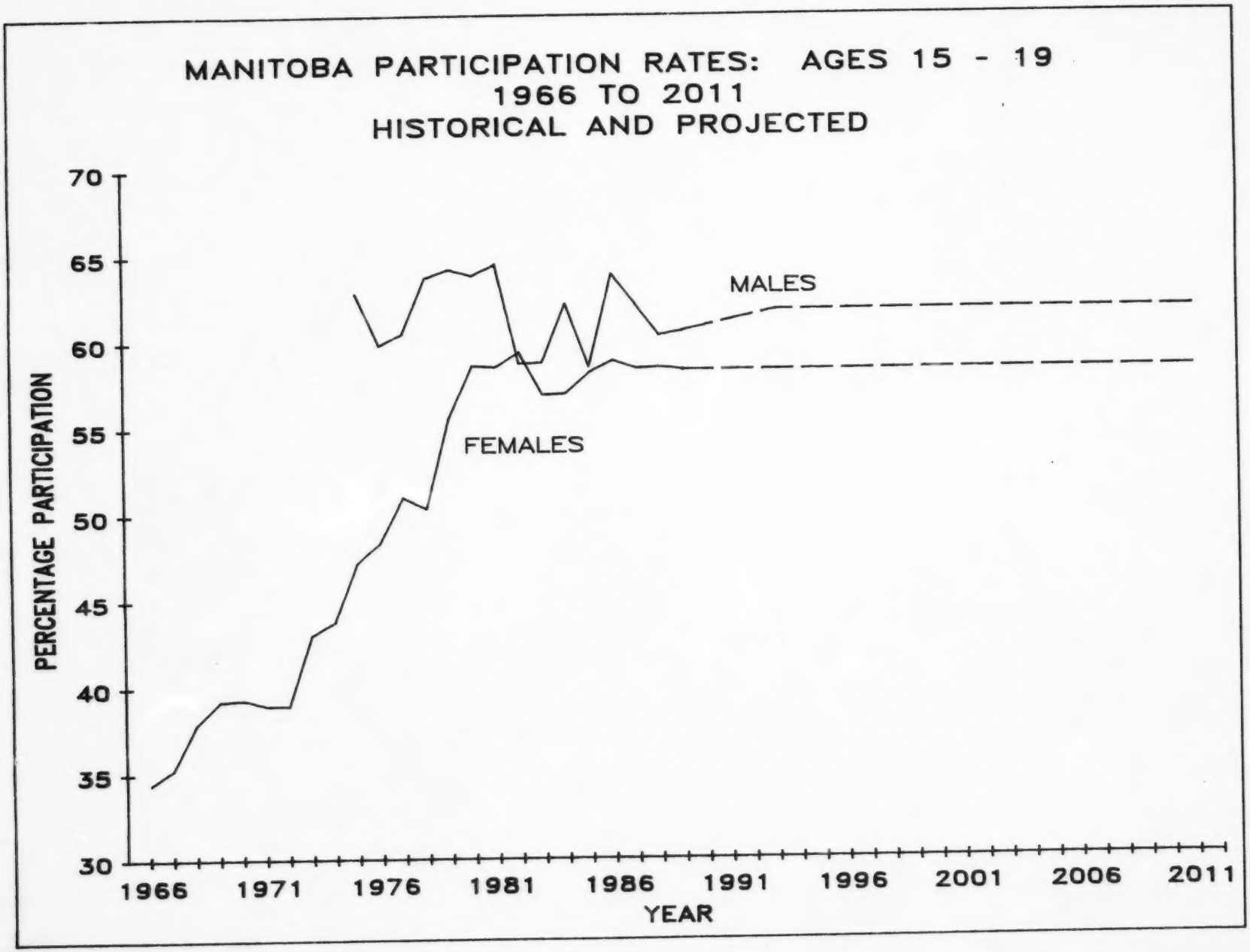
MARCH, 1989

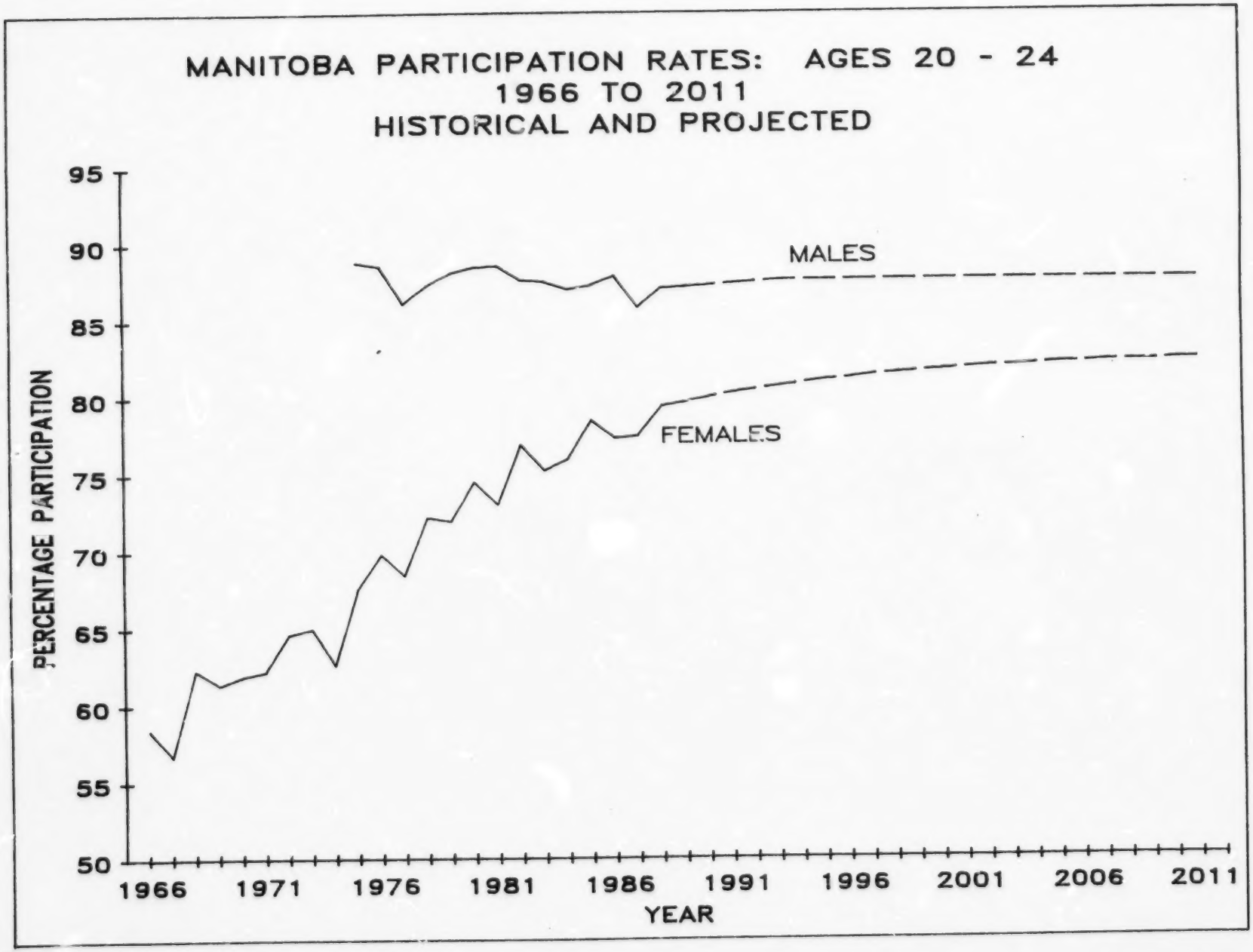
TABLE C3. LABOUR FORCE FOR MANITOBA BY AGE GROUP: 1987 - 2011
BOTH SEXES

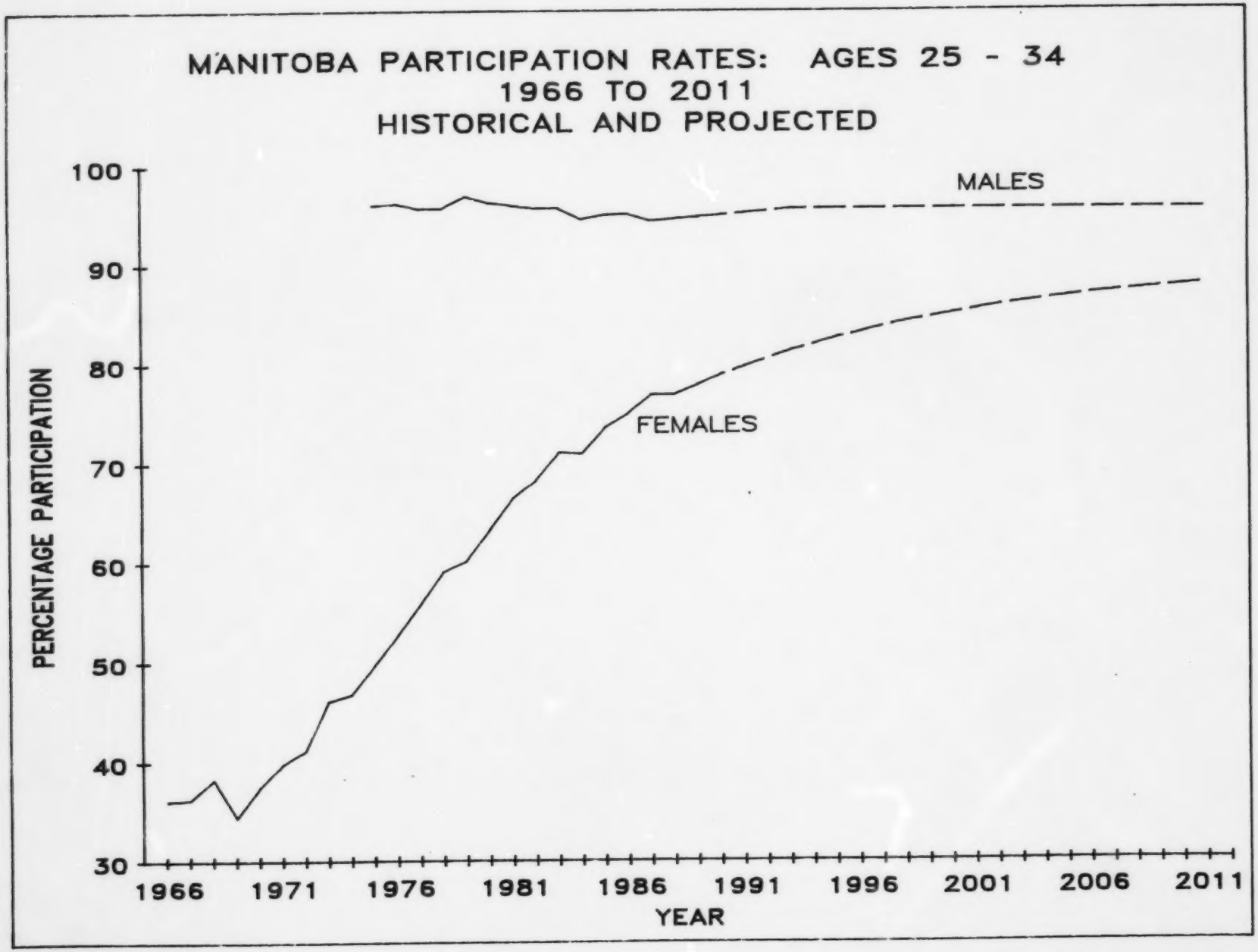
	15-19	20-24	25-34	35-44	45-54	55-64	65+	TOTAL
				(population in thousands)				
1987	47	70	151	120	81	50	11	531
1988	46	68	153	126	81	50	11	535
1989	46	67	155	131	83	50	11	543
1990	46	66	157	136	85	49	11	551
1991	45	67	158	141	88	49	11	558
1992	45	67	158	144	93	48	11	565
1993	44	68	157	146	97	48	11	572
1994	44	68	156	149	101	48	11	577
1995	44	67	155	152	105	48	11	582
1996	43	66	153	155	109	48	11	586
1997	43	65	151	158	113	49	12	591
1998	43	64	149	160	117	50	12	595
1999	44	64	146	162	121	51	12	599
2000	44	64	144	163	126	52	12	604
2001	44	63	143	163	130	53	12	608
2002	45	63	143	161	132	56	12	612
2003	46	64	142	160	134	59	12	616
2004	46	64	142	158	136	61	12	620
2005	47	64	141	157	139	63	12	624
2006	47	65	140	156	142	66	13	628
2007	47	66	140	153	145	68	13	631
2008	46	67	140	151	147	70	13	634
2009	46	68	140	148	149	72	13	637
2010	45	69	140	146	150	75	14	640
2011	44	69	141	146	150	77	14	642

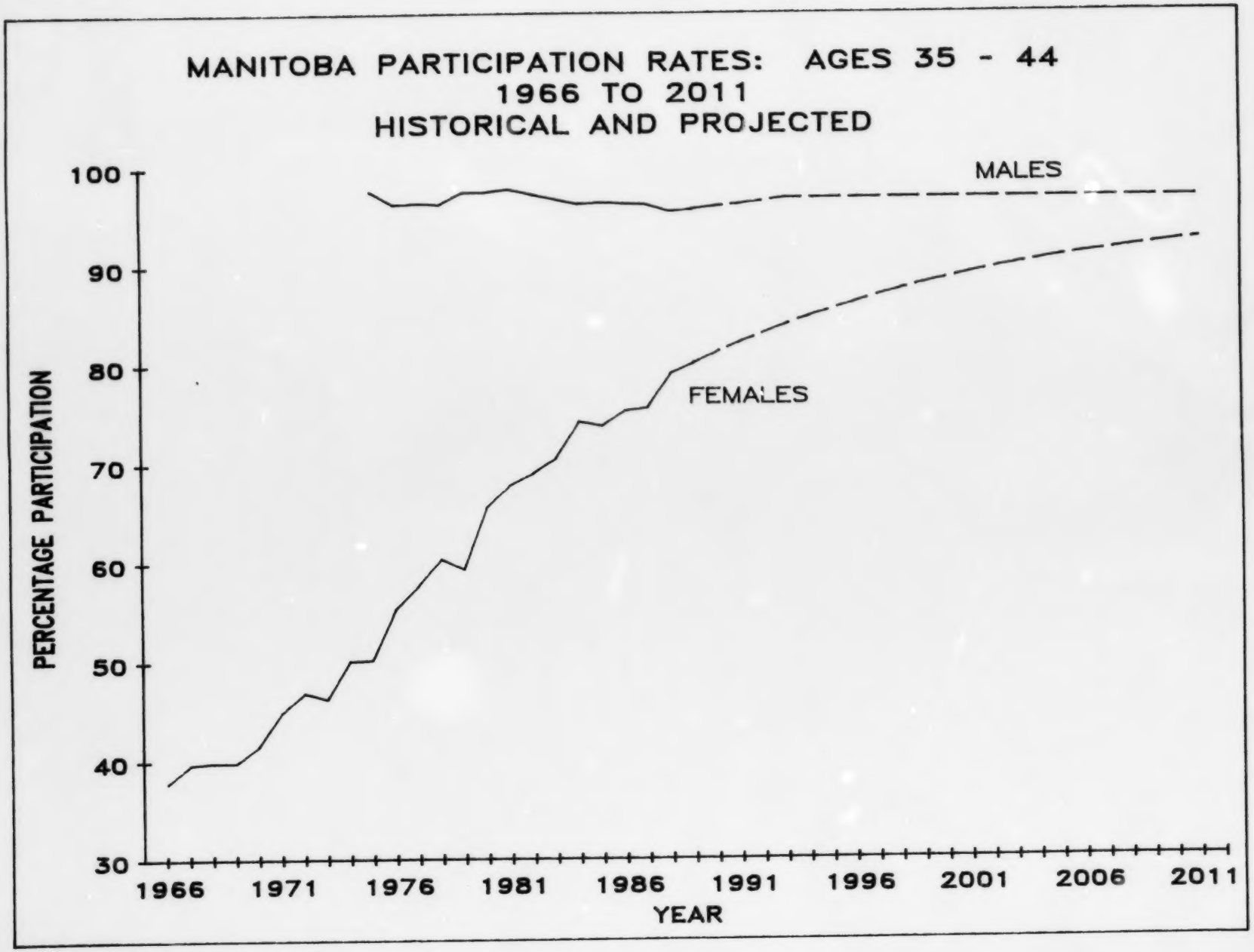
MANITOBA BUREAU OF STATISTICS

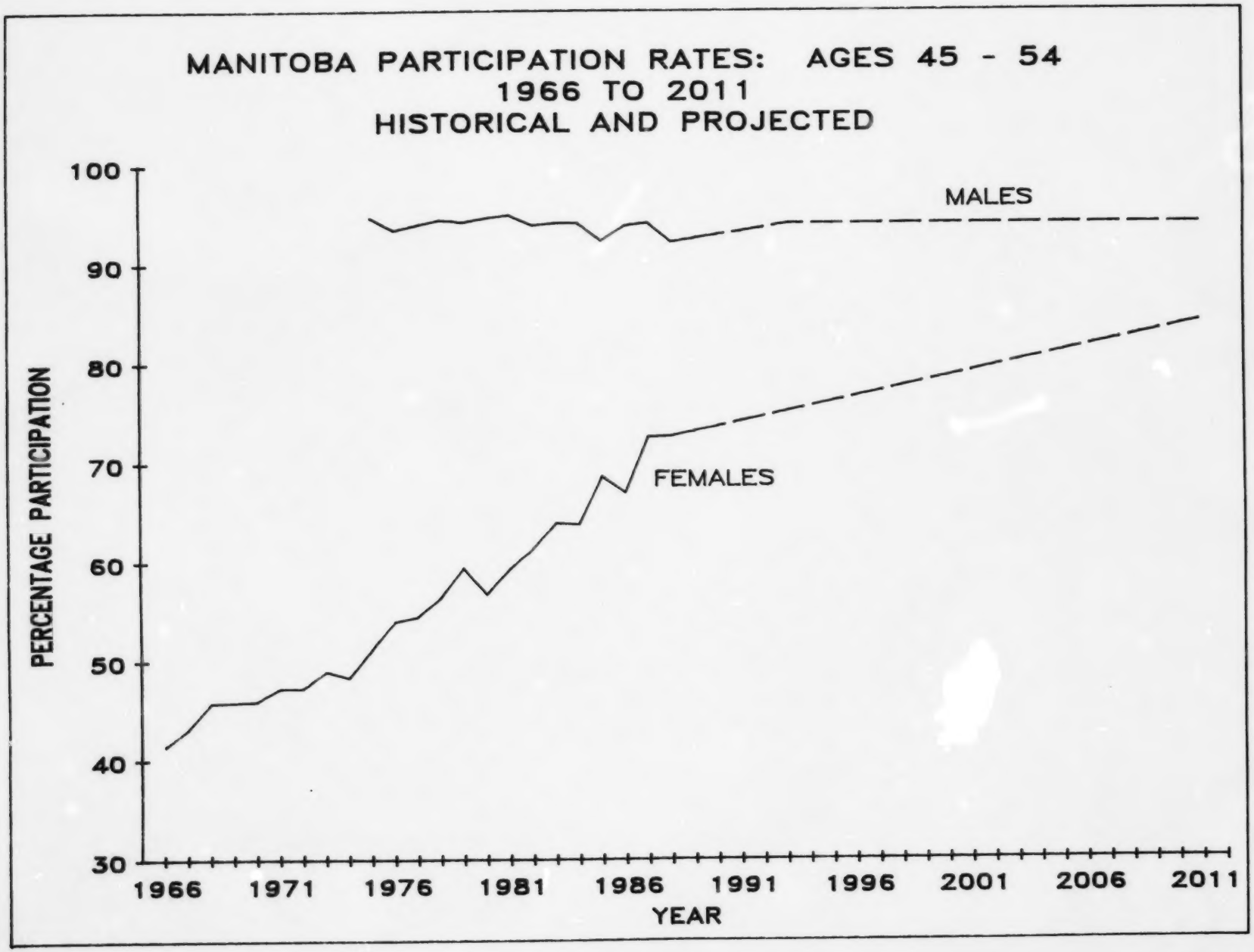
MARCH, 1989

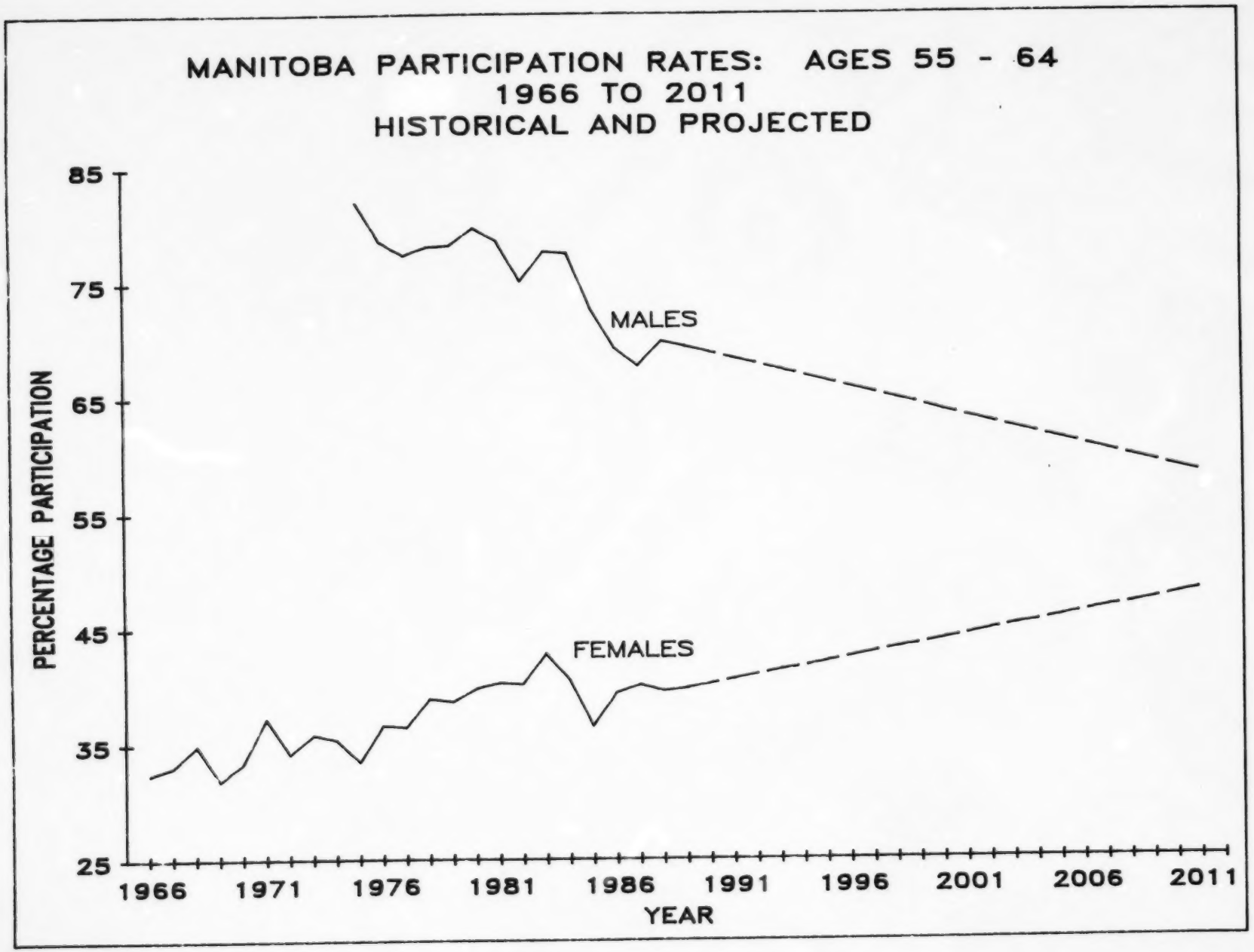

MANITOBA PARTICIPATION RATES: AGES 15 - 19
1966 TO 2011
HISTORICAL AND PROJECTED
PERCENTAGE PARTICIPATION
70
65
60
55
50
45
40
35
30
MALES
FEMALES
1966
1971
1976
1981
1986
1991
1996
2001
2006
2011
YEAR

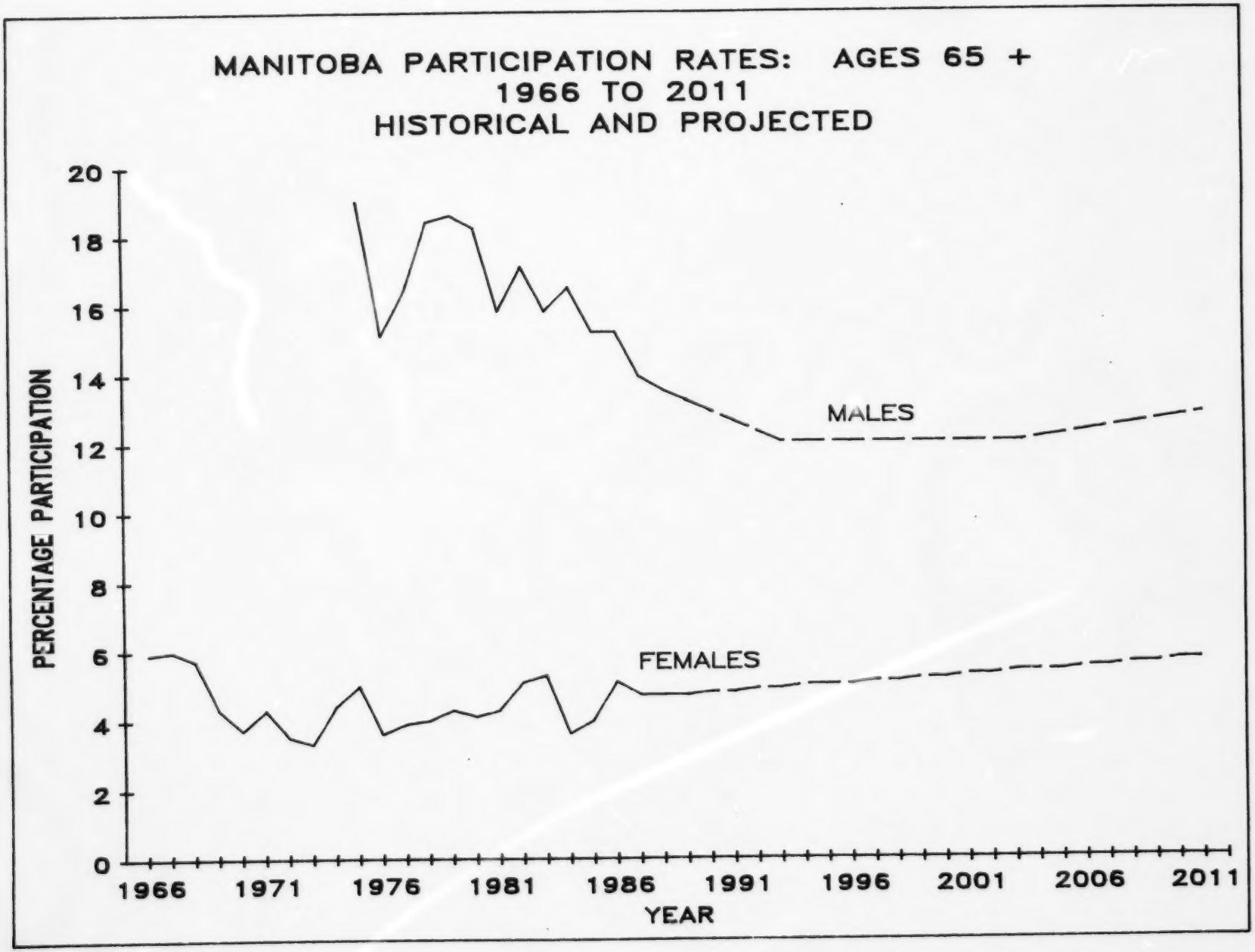

MANITOBA PARTICIPATION RATES: AGES 20 - 24
1966 TO 2011
HISTORICAL AND PROJECTED
MALES
FEMALES
PERCENTAGE PARTICIPATION
95
90
85
80
75
70
65
60
55
50
1966
1971
1976
1981
1986
1991
1996
2001
2006
2011
YEAR


MANITOBA PARTICIPATION RATES: AGES 25 - 34
1966 TO 2011
HISTORICAL AND PROJECTED
MALES
FEMALES
PERCENTAGE PARTICIPATION
100
90
80
70
60
50
40
30
1966
1971
1976
1981
1986
1991
1996
2001
2006
2011
YEAR


MANITOBA PARTICIPATION RATES: AGES 35 - 44
1966 TO 2011
HISTORICAL AND PROJECTED
MALES
FEMALES
PERCENTAGE PARTICIPATION
100
90
80
70
60
50
40
30
1966
1971
1976
1981
1986
1991
1996
2001
2006
2011
YEAR


MANITOBA PARTICIPATION RATES: AGES 45 - 54
1966 TO 2011
HISTORICAL AND PROJECTED
MALES
FEMALES
PERCENTAGE PARTICIPATION
100
90
80
70
60
50
40
30
1966
1971
1976
1981
1986
1991
1996
2001
2006
2011
YEAR


MANITOBA PARTICIPATION RATES: AGES 55 - 64
1966 TO 2011
HISTORICAL AND PROJECTED
PERCENTAGE PARTICIPATION
85
75
65
55
45
35
25
MALES
FEMALES
1966
1971
1976
1981
1986
1991
1996
2001
2006
2011
YEAR


MANITOBA PARTICIPATION RATES: AGES 65 +
1966 TO 2011
HISTORICAL AND PROJECTED
PERCENTAGE PARTICIPATION
20
18
16
14
12
10
8
6
4
2
0
MALES
FEMALES
1966
1971
1976
1981
1986
1991
1996
2001
2006
2011
YEAR

METHODOLOGY

Historical data (1966 to 1988 annual averages) on Manitoba's age and sex specific participation rates and labour force were obtained from Statistics Canada's Labour Force Survey (Catalogues 71-001 and 71-529).

The projected labour force population is based on the Manitoba Bureau of Statistics report **Manitoba Population Projections 1988 - 2011.** The adjustment factors used to obtain the labour force population (civilian non-institutionalized population, aged 15 and over) from the projected total population are as follows:

AGE GROUP	MALES	FEMALES
15-19	0.94699	0.94586
20-24	0.96777	0.96886
25-34	0.96993	0.97845
35-44	0.96481	0.98309
45-54	0.95622	0.97402
55-64	0.97107	0.98813
65+	0.94105	0.91764

These adjustment factors which are seven year averages (1981 to 1987) are different from the estimated adjustment factors for 1988.

The introduction of the above averages to the 1989 data would have resulted in large increases in the labour force population and labour force for 1989. Therefore, the adjustment factors were phased in over a five year period; the seven year averages are not reached until 1993. The adjustment factors are then assumed to remain constant over the remainder of the projection period.

The projected labour force is then derived from the product of the projected labour force population and the projected participation rates.

Participation rates by age group and sex were projected for the years 1989 to 2011, based on the historical participation rates, in the following ways:

1) **Males 15-19, 20-24, 25-34, 35-44 and 45-54:**

The participation rates of males in these five age groups have seen very little variation from 1975 to 1987. Therefore, the average participation rates of these groups were used as the projected rates, from 1989 through 2011.

In order to produce a smooth transition between estimated and projected participaion rates, a five year span (1989 to 1993) was used to bring the 1988 estimated rate up to the projected (average) rate.

2) **Males 55-64 and 65+:**

The historical data (1975 to 1988) for males in these two age groups points to a downward trend in their participation rates.

For the 55-64 age group, a linear regression equation was calculated from the historical data, but it projected what was felt to be too much of a decline in the participation rate. Excluding the 1986 to 1988 rates from the data produced a more moderate downward sloping line. This line, when projected, was adjusted by a constant to bench mark it to the estimated 1988 participation rate.

For the 65+ age group, the linear regression equation calculated from the historic data produced a downward slope, but it was thought that this trend would level off and then reverse itself before the year 2011, due to more seniors staying healthy and choosing to work. The equation was modified by a constant to bench mark the line to the estimated 1988 participation rate. The 1989 through 1993 rates were projected using this equation, then the projected rate was held stable through 2003 at which point a moderate increase was projected.

3) **Females 15-19:**

The participation rate of this group rose steadily from 1966 to 1980, but since 1980 appears to have stabilized. Therefore, the projected participation rate is the average of the 1980 to 1987 rates. This average rate (58.3%) is 94.3% of the projected male participation rate (61.8%) for 2011.

4) **Females 20-24, 25-34 and 35-44:**

The participation rates of females in these three age groups rose steadily from 1966 to 1988, but will soon exceed 100% of the labour force population if the increases continue at the same rates. It is projected that these rates will level off at about 90% to 95% of the male rates by the year 2011. This assumption combined with the historical data indicates an exponential curve of the form

$$F = (M - f) * (1 - \exp (-C (Y - Yo)))$$

should be fitted to the data, where

C determines the slope of the curve as modified by the place on the curve (Y - Yo)

Y is the year in question

Yo is the base year used so the curve best fits the data (1957 for females 20-24, 1964 for 25-34 and 1963 for 35-44)

M is the projected participation rate of males for 2011, in the age group being estimated

f is half the fertility rate of females in this age group, as it is assumed new mothers are out of the labour force for half of the year

M-f places an upper bound on the value of F

F is the projected participation rate for females in the age group being estimated

A satisfactory curve of this form, which approximates the historical data and results in female participation rates of about 90% to 95% of the male rates for 2011, was established for each of these female age groups.

5) **Females 45-54:**

The historical participation rates for this group do not adhere to the exponential curve described above. The slope of the curve defined by this data has been increasing, and if it does not level off in the next few years the female participation rate will soon exceed the corresponding male rate. To achieve a female participation rate 90% of the male rate by 2011, the increase in the female participation rate was fixed at 0.5% per year.

6) **Females 55-64 and 65+:**

The projected participation rates for females in these two age groups were arrived at by computing linear regression equations from the historical (1966 to 1988) participation rates, adjusting the equations by a constant to bench mark them to the estimated 1988 rates, and extrapolating these lines to the year 2011.

For females 65+ the observed participation rates from 1966 to 1968 were not used in determining the regression equation, as the estimates for these three years did not fit with the data from more recent years.